



# CHATTANOOGA COKE PLANT PROPERTY REDEVELOPMENT

- SUCCESS THROUGH COLLABORATION -

*Environmental Show of the South 2016  
Gatlinburg, Tennessee*

April 20, 2016

# COKE, NOT “COKE” (Coca-Cola)



# CHATTANOOGA COKE SITE OPERATIONS & HISTORY

- Starting around 1913 and spanning approximately 82 years, coke production occurred at the Tennessee Products and Chemical Company coke plant facility that occupied approximately 24 acres on Central Avenue in Chattanooga, Tennessee (the "Coke Plant").
- The Coke Plant was first established in 1913 by Chattanooga Gas and Coal Products. The site was later purchased by Chattanooga Coke and Gas Company. In 1926, the Coke Plant was acquired by Tennessee Products and Chemical Company ("Tennessee Products").
- The United States, through the Defense Plant Corporation, purchased a portion of the Coke Plant property from Tennessee Products in March 1941. The United States also purchased certain equipment for use on the Coke Plant, and then leased the land owned by the United States and that equipment back to Tennessee Products in exchange for annual rental payments.





# LKQ CHATTANOOGA

400 WORKMAN + 4800 CENTRAL AVE

Printed: Apr 15, 2016

HCGIS



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# LKQ CHATTANOOGA

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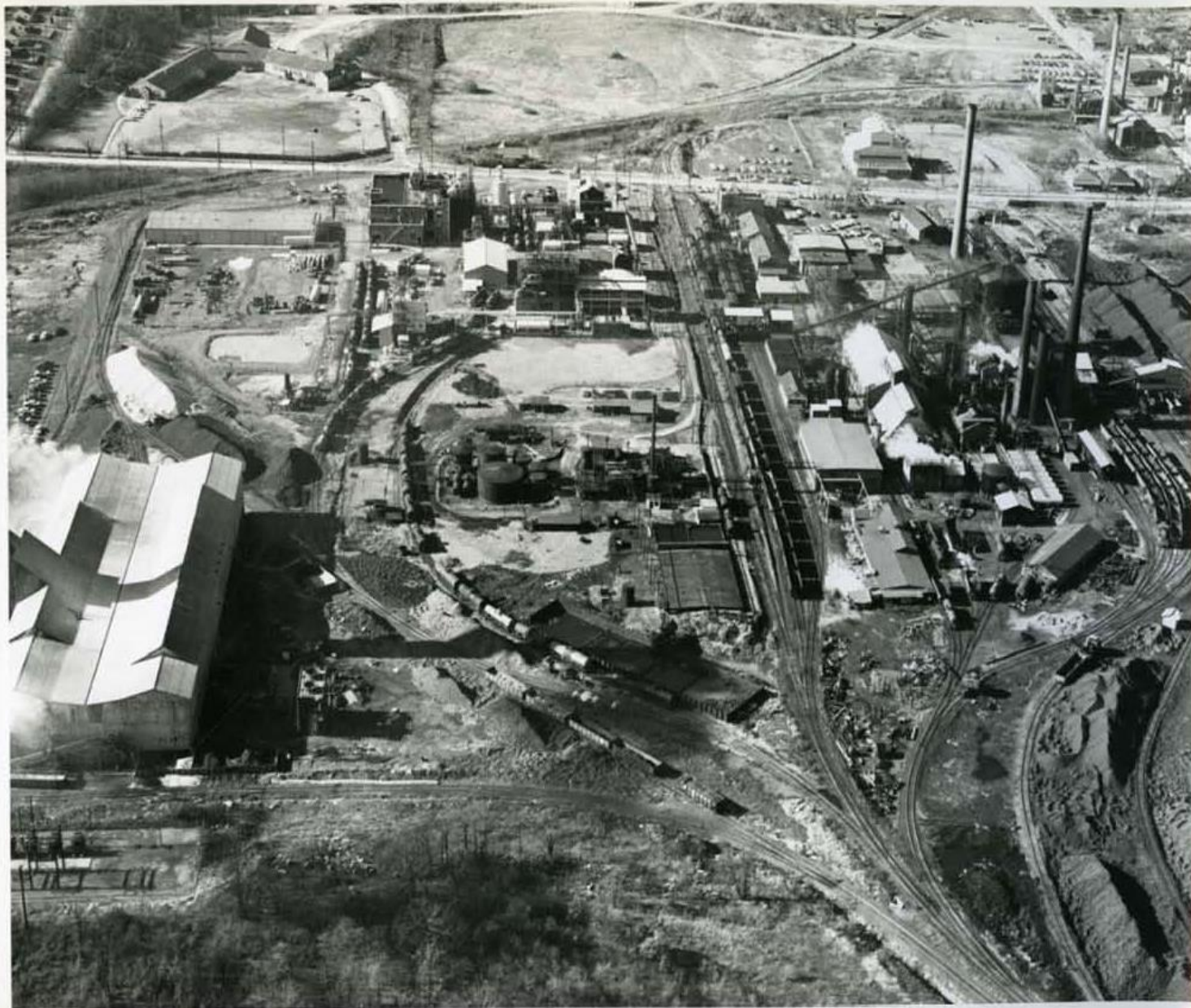
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# SITE OPERATIONS & HISTORY

- The United States sold the portion of the Coke Plant it owned and the associated equipment back to Tennessee Products in June 1946. During the years 1941-1946, Tennessee Products continued to own part of the Coke Plant property and conducted coke-making activities on the Coke Plant.
- Tennessee Products continued its coke-making activities on the Coke Plant after it purchased the portions of the real property and machinery owned by the United States from the United States in June 1946-1964.
- Tennessee Products sold the Coke Plant to Woodward Iron Co. on or about January 1, 1964.
- The Mead Corporation, predecessor to MW Custom Papers LLC, acquired the Coke Plant in a merger with Woodward Iron Co. in 1968 and operated the Coke Plant until the Mead Corporation sold the Coke Plant on or about May 31, 1974.

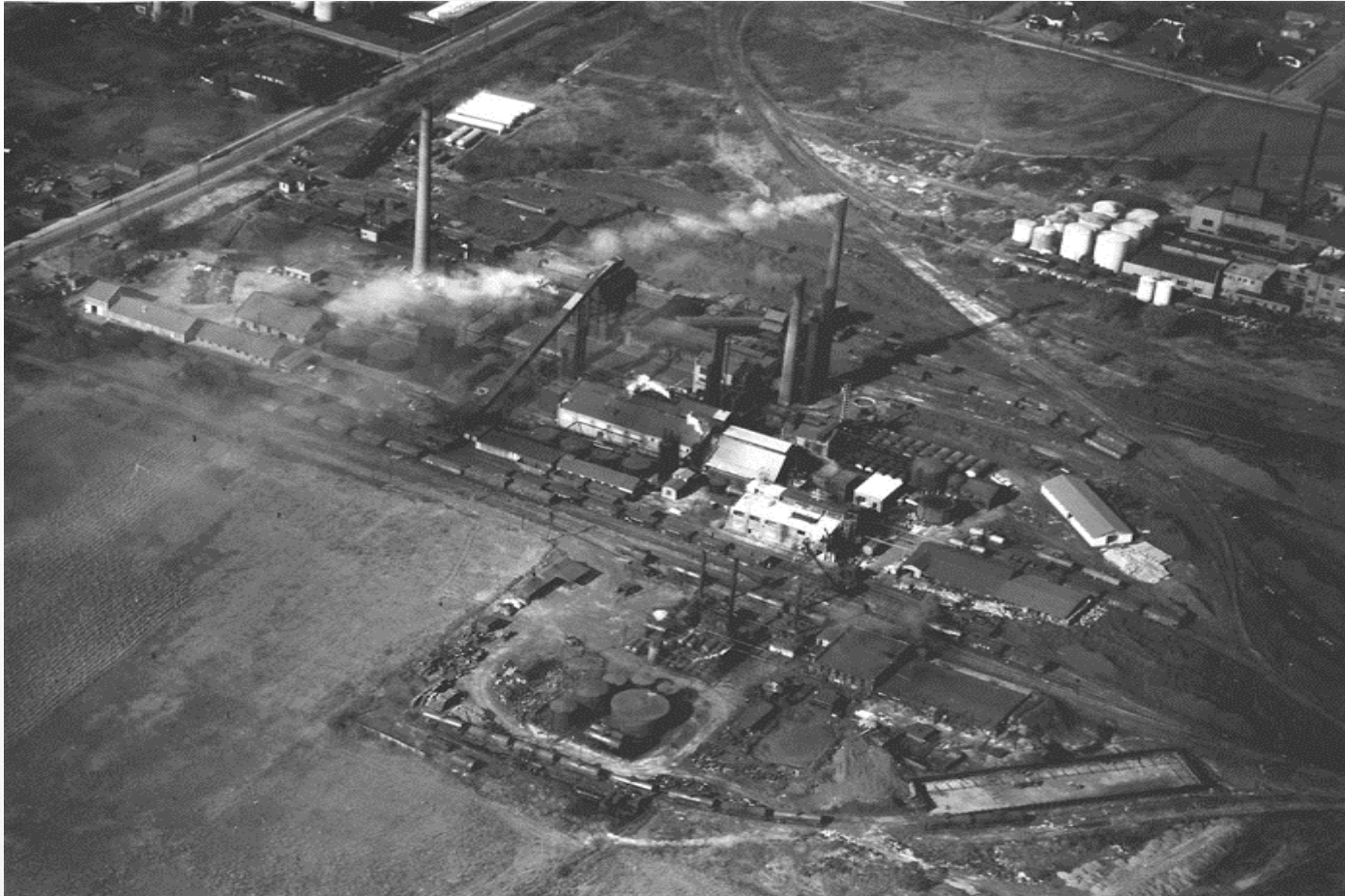




# SITE OPERATIONS & HISTORY

- A series of owners/operators were involved thereafter until all plant operations ceased in the 1990's.
- Coking operations at the Coke Plant **allegedly** resulted in the release and discharge of Hazardous Substances, Contaminants or Pollutants from the Coke Plant.

# Allegedly . . . !!!





# NPL SITE – To Be, or Not To Be?

- The United States Environmental Protection Agency ("EPA") aggregated the Coke Plant area, along with two other areas in the vicinity of the Coke Plant, into one site known as the "Tennessee Products Superfund Site" on the National Priorities List ("NPL") under CERCLA.
- Aggregation theory based upon ATSDR Advisory, not Hazard Ranking System Score(s).
- The Coke Plant portion of the Tennessee Products Superfund Site was later disaggregated from the Superfund Site and removed from the NPL by the D.C. Circuit Court of Appeals in *Mead v. Browner*, 100 F.3d 152 (D.C. Cir. 1996).

# TDEC Takes the Reins . . .

- Thereafter, the Tennessee Department of Environment and Conservation ("TDEC") assumed lead regulatory authority over the cleanup and activities at the Coke Plant under the DoR and VOAP – its Brownfield Program.
- TDEC DoR and VOAP efforts ultimately led to a multi-million dollar investigation and cleanup at the Coke Plant
  - Demolition and securitization of the Coke Plant in the mid-1990's;
  - Investigations and risk assessments;
  - Responsible party negotiations, Brownfield Consent Order, public-private property transfers, and Brownfield Voluntary Agreements;
  - Remedial Action and cleanup activities
  - No Further Action/Future Land Use Restrictions



# Brownfield Redevelopment Basics

Outcome based evaluation of environmental data allows for timely decisions to be made that take into account the “next intended use” and provide agreement from the State’s regulatory experts that a property is safe for future uses;





# Brownfield Redevelopment Basics



Liability protection for contamination identified and addressed that is transferrable to successors in interest or in title to the participant, contractors conducting response actions at the Site, developers, future owners, tenants, and lenders, fiduciaries or insurers.





# State Voluntary Program

The Voluntary Cleanup Oversight and Assistance Program (VOAP) (authorized by TCA 68-212-224) offers parties the opportunity to work proactively with TDEC to:

- Provide outcome-based evaluation of environmental data allowing for timely decisions and agreement from regulatory experts;
- TDEC and voluntary party negotiate an Agreement that outlines the actions to be taken to make the property safe for its next intended use
- Requires certain public notification activities (30 days)
- Certain fees are required for program involvement
- Final product is a No Further Action letter that provides purchaser(s), lenders, successors in title, etc. comfort that TDEC approves of actions taken to address the property for its next intended use

The VOAP is Tennessee's state response program under the [Small Business Liability Relief and Brownfields Revitalization Act](#). As a result, program participants may receive protection from intervention by the EPA at eligible sites.

# State Voluntary Program

## Brownfield Strategies:

- Incorporate targeted cleanup and/or caps/covers for on-site management into redevelopment plan
- Develop/Implement **Soil Management Plan** for future development
- Limit future use of the property via **Notice of Land Use Restrictions**
- Use of pre-emptive mitigation especially when dealing with volatile chemicals





# State Voluntary Program

What makes Brownfield redevelopment project work?

- A property that is suitable for redevelopment
- Location, accessibility, infrastructure, customer base
- A developer who is willing to take on the risk for the property
- Profitability for the developer
- Tolerance of the community in terms of future uses of the property (Industrial, commercial, recreational, residential)
- Incentives



# State Voluntary Program

- Understand the history of the property, including suspected operational areas
- Evaluate suitability of next intended use
- Focused due diligence (AAI standard)
- Close coordination between stakeholders





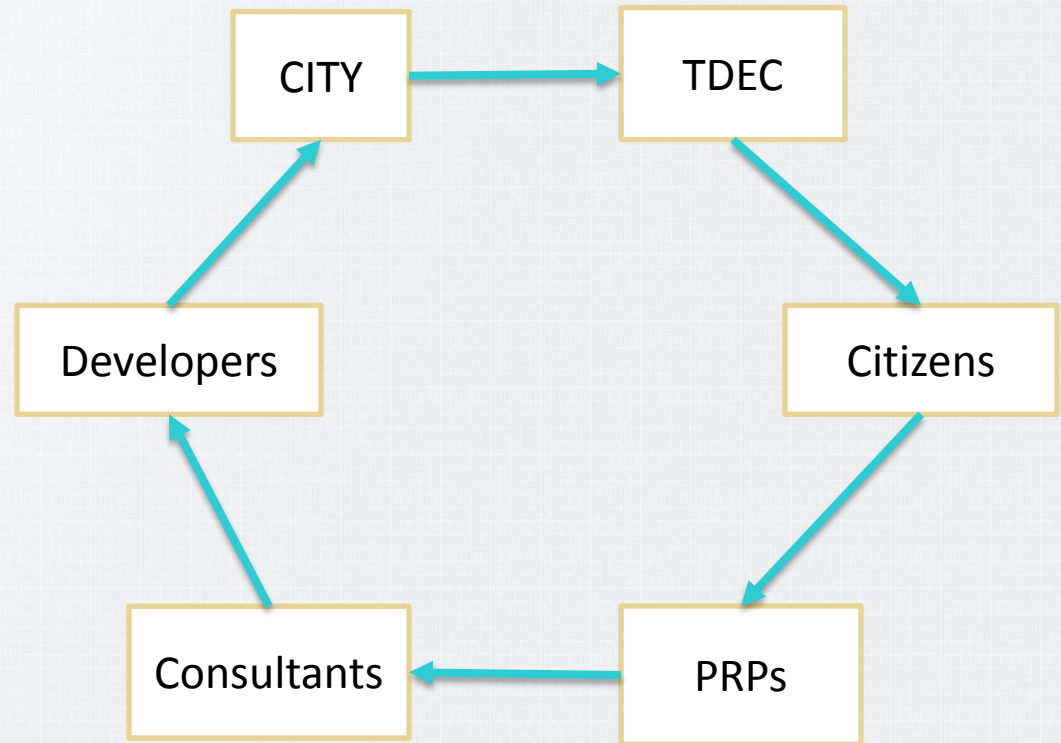
# State Voluntary Program

- Identified impacts can be managed by engineering controls (e.g., paved surfaces or landscaped areas)
- Consider potential for vapor intrusion at each site
- Soil Management Plan used to guide redevelopment construction activity with Interim Actions conducted as needed
- Land Use Restrictions and O&M Plan designed to fit reuse





# HANDLING MULTIPLE PLAYERS & JUGGLING MOVING PARTS



# HANDLING MULTIPLE PLAYERS & JUGGLING MOVING PARTS

- Each Governmental Unit and Private Entity dealt with internal and external factors/turmoil
  - Changing priorities, policies and initiatives
  - Budget pressures and fluctuations in available capital (dollars; manpower; etc.)
  - Institutional Transitions – mergers; personnel changes; lost historical knowledge
  - Mutuality/Divergence of interests between and among governments, stakeholders

# HANG ON ... IT'S GOING TO BE A BUMPY RIDE





# BARRIERS, HURDLES & “DEBRIS”

Depending upon a party’s perspective, the road ahead contained differing challenges.

## PRP Perspective

- Attracting Interest of Partners
- Time Lag + Shuttle Diplomacy
- Threat of Litigation/Appropriate Allocation
- Defining + Dividing Scope of Work
- Contractor Selection and Management
- Project Budgets for known and unknown issues

## CITY/Community Perspective

- Risk Reduction
- Economic Opportunities/Jobs
- Productive Property Use/Tax Rolls
- Community Restoration/Health and Aesthetics
- Recreational Interests



# BARRIERS, HURDLES & “DEBRIS”

## TDEC Perspective

- Jurisdictional issues (inter-departmental; w/municipalities; etc.)
- Comfort level, skepticism with Risk Assessment data and results, and additional comfort with proposed supplemental protective measures
- Unknowns
  - High Groundwater Table (POTW cooperation)
  - Hidden rail, tracks, sumps, etc.
  - Differing wastes, textures, types and quantities
  - Politics/new administrations
- Changes in Dev. plans (simultaneous work; grade; facility drawings; drainage)
- Balance between Consent Order and BVA interests

## New Developer Perspective

- Time lag
- Changes in Dev. plans (simultaneous work; facility drawings; drainage)
- Balance between Consent Order and BVA interests
- Project Budget - known and unknown (Water; Remobil.; RR ROW, etc.)
- City Land Swap and Land Use Restrictions
- Land Use Restrictions



# STEPS TO SUCCESS

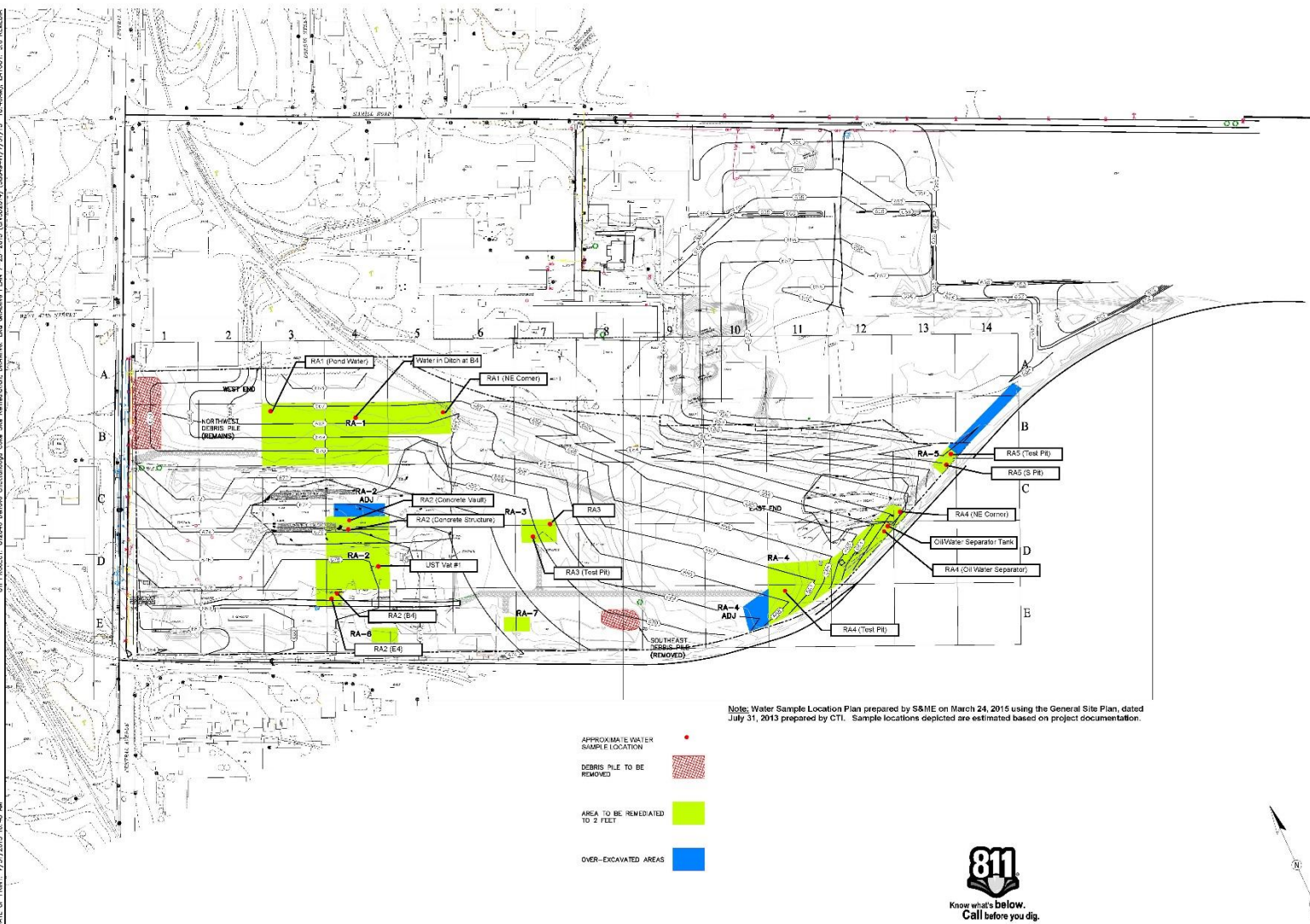


# STEPS TO SUCCESS

- **Collaborative Effort was the Keystone**
  - Flexibility, not entrenchment
  - Vision, not reactivity
- **Rational Use and Application of Risk Data**
- **Concrete and Objective Goals for Achievement**
  - Honestly Articulated Checks + Balances
- **Planning, Planning, Planning** – then, implementation
- **Timely Oversight and Keen Field Decisions**
- **Consistent Periodic Reporting of Status Updates/Milestone Achievement**







MEADOWSVACO CORPORATION FORMER CHATTANOOGA COKE PLANT SITE REMEDIAL ACTION WORK PLAN			
WATER SAMPLE LOCATION MAP			
REVISION	DATE	BY	APP
1	07/31/2013	CTI	CTI
2	08/24/2014	CTI	CTI
3	08/24/2014	CTI	CTI
4	08/24/2014	CTI	CTI
5	08/24/2014	CTI	CTI
6	08/24/2014	CTI	CTI
7	08/24/2014	CTI	CTI
8	08/24/2014	CTI	CTI
9	08/24/2014	CTI	CTI
10	08/24/2014	CTI	CTI
11	08/24/2014	CTI	CTI
12	08/24/2014	CTI	CTI
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98	08/24/2014	CTI	CTI
99	08/24/2014	CTI	CTI
100	08/24/2014	CTI	CTI



DATE	07/31/2013
TIME	10:46 AM
DATE	7/31/2013
AS NOTED	
DATE	7/31/2013



**Photo 3**



Date: 1/9/2013

Photographer: Pat Gribben

Location / Orientation	From the north facing south
Remarks	View of removed tank and stockpiled backfill materials

**Photo 4**



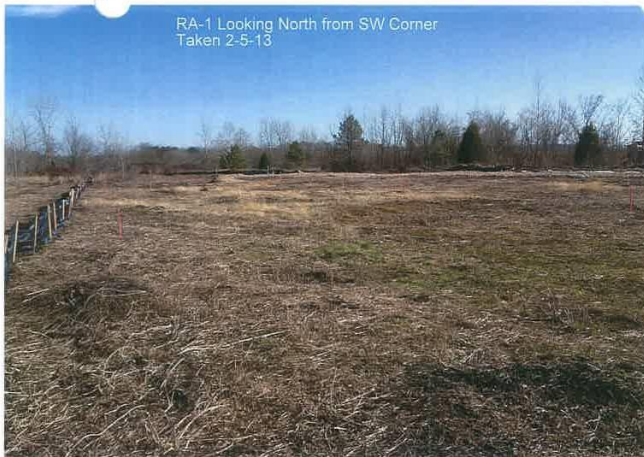
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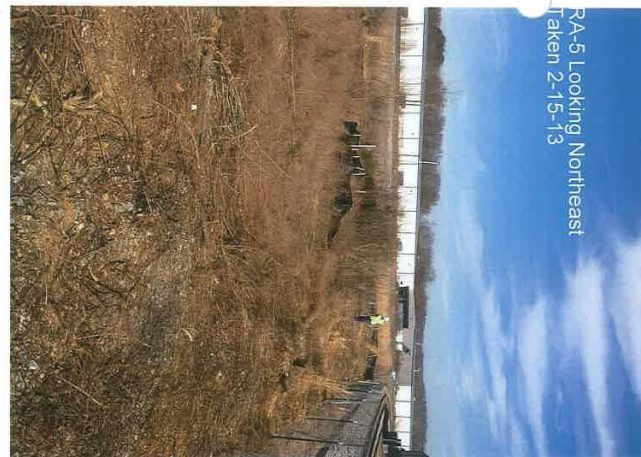
Location/Orientation	From east facing west
Remarks	View of tank pit filling with groundwater. Petroleum sheen evident in lower right corner.







RA-1 Looking North from SW Corner  
Taken 2-5-13



RA-6 Looking Northeast  
Taken 2-15-13



RA-1 Looking North  
Taken 2-5-13



RA-5 Looking West  
Taken 2-5-13









RA-6 Looking SW  
Taken 4-30-13



Backfilling in West End of Remediation Area 1  
3-15-13



RA-3 Looking West  
Taken 4-30-13



RA-7 Looking West  
Taken 4-30-13



RA-5  
Taken 5-29-13



RA-2 Mulching  
Taken 5-29-13



RA-5 Extended  
Taken 5-29-13



North End of RA-4  
Looking Northeast toward RA-5  
Taken 5-29-13









- Remedial Activities at the Coke Plant and its surrounding properties in this economically depressed area of Chattanooga has created neighborhood area jobs, sparked new recreational venues, and eliminated historic eyesores or health hazards.
- The PRP achieved the Brownfield Consent Order requirements and Remedial Action objectives, as follows:
  - Site preparation activities, including erosion and sediment control, clearing and grubbing, and construction of haul roads;
  - Survey and delineation of the Remedial Areas pre- and post-grading
  - Obtained special waste permit;
  - Completed bulk excavation and removal of PAH and coal tar impacted surface and subsurface soils and materials as specified in the Brownfield Consent Order;
  - Disposed of PAH or coal tar impacted soils and materials at appropriate, licensed disposal facilities;
  - Removed and properly disposed of the UST, Oil Water Separator and concrete flume;
  - Engaged in ground water and surface water control and testing, particularly in the Remedial Areas, minimizing potential of cross-contamination or off site migration during excavation;
  - Encountered, analyzed and addressed two debris piles, retaining or removing and disposing of materials as appropriate, and tested, controlled and coordinated with TDEC the handling and removal of benzene impacted soils;
  - Prepared and submitted necessary reports or work plans
- The PRP remobilized and addressed later-identified areas of suspect coal tar during development phase.



# STEPS TO SUCCESS

- The Chattanooga Coke Plant project is an outstanding example of how an effective, multi-party, remedial project can be conducted via collaborative public-private partnerships among TDEC, a City (Chattanooga), PRPs, a Developer, environmental professionals and contractors, and the neighborhood citizens.
- Site improvements made as part of the remedial activities have encouraged area redevelopment, added jobs, catalyzed growth and provided significant economic benefits to governments, businesses and residents in Chattanooga.



# Questions / Answers





# CONTACT

***Troy Keith, P.G.***

***Environmental Consultant II***

***Division of Remediation***

***Chattanooga Field Office***

***1301 Riverfront Parkway, Suite 206***

***Chattanooga, TN 37402***

***423-634-5755***

***[troy.keith@tn.gov](mailto:troy.keith@tn.gov)***

***[tn.gov/environment](http://tn.gov/environment)***

***David C. Higney, Esq.***

***Grant Konvalinka & Harrison, PC***

***633 Chestnut Street***

***Suite 900, Republic Centre***

***Chattanooga, TN 37450-0900***

***ph. 423.756.8400, x.230***

***fax 423.756.0643***

***[dhigney@gkhpc.com](mailto:dhigney@gkhpc.com)***

***[www.gkhpc.com](http://www.gkhpc.com)***





THANK YOU

